SPIRE Corp
Form 10-Q
August 10, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

þ Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the quarterly period ended June 30, 2012; or

o Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____

Commission file number: 0-12742

Spire Corporation
(Exact name of registrant as specified in its charter)

Massachusetts (State or other jurisdiction of incorporation or organization)	04-2457335 (I.R.S. Employer Identification Number)
One Patriots Park, Bedford, Massachusetts (Address of principal executive offices)	01730-2396 (Zip Code)

781-275-6000
(Registrant's telephone number including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o	Smaller reporting company þ

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No þ

The number of shares of the registrant's common stock outstanding as of August 2, 2012 was 8,562,633.

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PART I. FINANCIAL INFORMATION

Item 1. Unaudited Condensed Consolidated Financial Statements

SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	June 30, 2012	December 31, 2011
Assets		
Current assets		
Cash and cash equivalents	$7,199	$4,758
Restricted cash	718	21
Accounts receivable – trade, net	2,310	3,464
Inventories, net	6,066	7,153
Deferred cost of goods sold	64	180
Deposits on equipment for inventory	103	609
Prepaid expenses and other current assets	584	757
Current assets of discontinued operations and assets held for sale	—	694
Total current assets	17,044	17,636
Property and equipment, net	1,084	1,354
Intangible and other assets, net	461	490
Available-for-sale investments, at quoted market value (cost of $2,250 and $2,204 at June 30, 2012 and December 31, 2011, respectively)	2,560	2,405
Deposit – related party	—	300
Non-current assets of discontinued operations and assets held for sale	—	1,993
Total assets	$21,149	$24,178
Liabilities and Stockholders' Equity		
Current liabilities		
Current portion of capital lease obligation	19	37
Revolving line of credit	1,157	1,157
Accounts payable	1,745	3,405
Accrued liabilities	3,398	3,451
Advances on contracts in progress	1,029	2,232
Liabilities of discontinued operations	23	1,654
Total current liabilities	7,371	11,936
Long-term portion of capital lease obligation	15	21
Deferred compensation	2,560	2,405
Other long-term liabilities	727	1,106
Total long-term liabilities	3,302	3,532
Total liabilities	10,673	15,468
Stockholders' equity		
Common stock, $0.01 par value; 20,000,000 shares authorized; 8,562,633 shares issued and outstanding on June 30, 2012 and December 31, 2011, respectively	86	86
Additional paid-in capital	22,624	22,510
Accumulated deficit	(12,544)	(14,087)
Accumulated other comprehensive income	310	201

Total stockholders' equity	10,476	8,710
Total liabilities and stockholders' equity	$21,149	$24,178

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Net sales and revenues				
Sales of goods	$4,449	$11,661	$9,938	$27,378
Contract research and service revenues	2,171	2,210	4,157	4,221
Total net sales and revenues	6,620	13,871	14,095	31,599
Cost of sales and revenues				
Cost of goods sold	4,134	7,417	8,422	20,764
Cost of contract research and services	1,240	1,115	2,474	2,378
Total cost of sales and revenues	5,374	8,532	10,896	23,142
Gross margin	1,246	5,339	3,199	8,457
Operating expenses				
Selling, general and administrative expenses	2,940	3,893	6,404	7,958
Internal research and development expenses	93	203	191	536
Total operating expenses	3,033	4,096	6,595	8,494
Operating income (loss) from continuing operations	(1,787)	1,243	(3,396)	(37)
Interest expense, net	(36)	(34)	(67)	(65)
Foreign exchange gain (loss)	1	(5)	3	(2)
Total other expense, net	(35)	(39)	(64)	(67)
Income (loss) from continuing operations before income tax benefit (provision)	(1,822)	1,204	(3,460)	(104)
Income tax benefit (provision) - continuing operations	—	(15)	1,992	(15)
Income (loss) from continuing operations	(1,822)	1,189	(1,468)	(119)
Loss from discontinued operations before sale of business unit	—	(495)	(430)	(1,198)
Gain on sale of business unit, net of transaction expenses	—	—	5,449	—
Income tax provision - discontinued operations	—	—	(2,008)	—
Income (loss) from discontinued operations, net of tax	—	(495)	3,011	(1,198)
Net income (loss)	$(1,822)	$694	$1,543	$(1,317)
Basic income (loss) per share:				
From continuing operations, net of tax	$(0.21)	$0.14	$(0.17)	$(0.02)
From discontinued operations, net of tax	—	(0.06)	0.35	(0.14)
Basic income (loss) per share	$(0.21)	$0.08	$0.18	$(0.16)
Diluted income (loss) per share:				
From continuing operations, net of tax	$(0.21)	$0.14	$(0.17)	$(0.02)
From discontinued operations, net of tax	—	(0.06)	0.35	(0.14)
Diluted income (loss) per share	$(0.21)	$0.08	$0.18	$(0.16)

Weighted average number of common and common equivalent shares outstanding – basic	8,562,633	8,362,633	8,562,633	8,361,514
Weighted average number of common and common equivalent shares outstanding – diluted	8,562,633	8,362,937	8,562,633	8,361,514

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Comprehensive income (loss):				
Net Income (loss)	$ (1,822)	$ 694	$ 1,543	$ (1,317)
Other comprehensive income:				
Change in unrealized gain (loss) on available for sale marketable securities, net of tax	(223)	(6)	109	68
Total comprehensive income (loss)	$ (2,045)	$ 688	$ 1,652	$ (1,249)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

SPIRE CORPORATION AND SUBSIDIARIES
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Six Months Ended June 30,	
	2012	2011
Cash flows from operating activities:		
Net income (loss)	$1,543	$(1,317)
Less: Net income (loss) from discontinued operations, net of tax	3,011	(1,198)
Loss from continuing operations	(1,468)	(119)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	410	577
Deferred tax benefit	(2,008)	—
Deferred compensation	109	68
Stock-based compensation	121	206
Provision for (reversal of) accounts receivable reserves	21	(20)
Provision for inventory reserve	192	512
Changes in assets and liabilities:		
Restricted cash	(697)	—
Accounts receivable	1,133	1,290
Inventories	895	(3,363)
Deferred cost of goods sold	116	(1,466)
Deposits, prepaid expenses and other current assets	679	(444)
Accounts payable, accrued liabilities and other liabilities	(1,877)	(419)
Deposit - related party	300	—
Advances on contracts in progress	(1,203)	3,233
Net cash provided by (used in) operating activities of continuing operations	(3,277)	55
Net cash provided by (used in) operating activities of discontinued operations	3,725	(829)
Net cash provided by (used in) operating activities	448	(774)
Cash flows from investing activities:		
Purchase of property and equipment	(100)	(100)
Additions to intangible and other assets	(11)	(39)
Net cash used in investing activities of continuing operations	(111)	(139)
Net cash provided by (used in) investing activities of discontinued operations	2,128	(54)
Net cash provided by (used in) investing activities	2,017	(193)
Cash flows from financing activities:		
Principal payments on capital lease obligations	(24)	(22)
Proceeds from exercise of stock options	—	9
Net cash used in financing activities	(24)	(13)
Net increase (decrease) in cash and cash equivalents	2,441	(980)
Cash and cash equivalents, beginning of period	4,758	6,259
Cash and cash equivalents, end of period	$7,199	$5,279
Supplemental disclosures of cash flow information:		
Interest paid	$67	$66
Income taxes paid (refunded), net	$5	$(26)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

SPIRE CORPORATION AND SUBSIDIARIES
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

June 30, 2012 and 2011

1. Description of the Business

Spire Corporation ("Spire" or the "Company") develops, manufactures and markets highly-engineered products and services in two principal business areas: (i) capital equipment and systems for the photovoltaic solar industry and (ii) biomedical, generally bringing to bear expertise in materials technologies, surface science and thin films across both business areas, discussed below.

In the photovoltaic solar area, the Company develops, manufactures and markets specialized equipment for the production of terrestrial photovoltaic modules from solar cells and provide photovoltaic systems for grid connected applications in the commercial markets. The Company's equipment has been installed in approximately 200 factories in 50 countries. The equipment market is very competitive with major competitors located in Japan and Switzerland. The Company's flagship product is its Sun Simulator which tests module performance. The Company's other product offerings include turn-key module lines and to a lesser extent other individual equipment. To compete the Company offers other services such as training and assistance with module certification. The Company also provides turn-key services to its customers to backward integrate to solar cell manufacturing. At times, the Company supplies materials such as solar cells to certain customers.

In the biomedical area, the Company provides value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; and performs sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

On December 14, 2009, the Company completed the sale of its medical products business unit, which develops and markets coated and uncoated hemodialysis catheters and related devices for the treatment of chronic kidney disease (the “Medical Products Business Unit”), to Bard Access Systems, Inc. (“Bard”). Accordingly, the liabilities of the Medical Products Business Unit are being presented herein as discontinued operations. See Note 12 to the unaudited condensed consolidated financial statements.

On March 9, 2012, the Company completed the sale of its semiconductor business unit, which provides semiconductor foundry services, operates a semiconductor foundry and fabrication facility and is engaged in the business of wafer epitaxy, foundry services, and device fabrication for the defense, medical, telecommunications and consumer products markets (the “Semiconductor Business Unit”), to Masimo Corporation ("Masimo"). Accordingly, the results of operations and assets and liabilities of the Semiconductor Business Unit are being presented herein as discontinued operations. See Note 12 to the unaudited condensed consolidated financial statements.

Operating results will depend upon revenue growth and product mix, as well as the timing of shipments of higher priced products from the Company’s solar equipment line, delivery of solar systems and solar materials. Export sales, which amounted to 64% and 65% of net sales and revenues for the three and six months ended June 30, 2012, respectively, and 74% and 55% of net sales and revenues for the three and six months ended June 30, 2011, respectively, continue to contribute a significant portion of the Company's net sales and revenues.

The Company has incurred operating losses from continuing operations in 2012 and 2011. Operating loss from continuing operations was $1.8 million and $3.4 million for the three and six months ended June 30, 2012, respectively. Operating income from continuing operations was $1.2 million and operating loss from continuing

operations was $37 thousand for the three and six months ended June 30, 2011, respectively. Net cash provided by operating activities was $448 thousand for the six months ended June 30, 2012, which includes $3.7 million of cash provided by operating activities of discontinued operations. Net cash used in operating activities was $774 thousand for the six months ended June 30, 2011. As of June 30, 2012, the Company had unrestricted cash and cash equivalents of $7.2 million compared to $4.8 million as of December 31, 2011. The Company has numerous options on how to fund future operational losses or working capital needs, including but not limited to sales of equity, bank debt or the sale or license of assets and technology, as it has done in the past; however, there are no assurances that the Company will be able to sell equity, obtain or access bank debt, or sell or license assets or technology on a timely basis and at appropriate values. The maturity date of the Company's credit facilities is December 29, 2012. The Company has developed several plans including cost containment efforts and potential outside financing to offset a decline in business due to global economic conditions. As a result, the Company believes it has sufficient resources to finance its current operations through at least June 30, 2013.

2. Interim Financial Statements

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted in accordance with such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the annual audited consolidated financial statements and notes thereto for the year ended December 31, 2011, included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements contain all adjustments (consisting of normal recurring adjustments) necessary to fairly present the Company's financial position as of June 30, 2012 and December 31, 2011 and the results of its operations for the three and six months ended June 30, 2012 and 2011. The results of operations for the three and six months ended June 30, 2012 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2012. The unaudited condensed consolidated balance sheet as of December 31, 2011 has been derived from audited financial statements as of that date. During the second quarter of 2009, the Company began pursing an exclusive sales process of its Medical Products Business Unit. On December 14, 2009, the Company completed the sale of the Medical Products Business Unit to Bard. During the first quarter of 2012, the Company began pursing an exclusive sales process of its Semiconductor Business Unit and on March 9, 2012, the Company completed the sale of the Semiconductor Business Unit to Masimo. Accordingly, the results of operations and assets and liabilities of the Semiconductor Business Unit and the liabilities of the Medical Products Business Unit are being presented herein as discontinued operations. See Note 12 to the unaudited condensed consolidated financial statements.

Summary of Significant Accounting Policies

The significant accounting policies followed by the Company are set forth in Note 2 to the Company's consolidated financial statements in its Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC.

New Accounting Pronouncements

In December 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU")No. 2011-11 ("ASU 2011-11"), Disclosures about Offsetting Assets and Liabilities. The update requires companies to disclose information about financial instruments that have been offset and related arrangements to enable users of their financial statements to understand the effect of those arrangements on their financial position. Companies will be required to provide both net (offset amounts) and gross information in the notes to the financial statements for relevant assets and liabilities that are offset. ASU 2011-11 is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. We do not expect the adoption of this update to have an impact on the Company's consolidated financial statements.

In June 2011, FASB issued ASU No. 2011-05 ("ASU 2011-05"), Presentation of Comprehensive Income. The update eliminates the option to present the components of other comprehensive income as part of the statement of stockholders' equity. Instead, entities must report comprehensive income in either a single continuous statement of comprehensive income which contains two sections, net income and other comprehensive income, or in two separate but consecutive statements. In December 2011, the requirement regarding the presentation of reclassification adjustments out of accumulated other comprehensive income was deferred indefinitely. ASU 2011-05 is effective for public companies for interim and annual periods beginning after December 15, 2011. The Company adopted ASU 2011-05 on January 1, 2012, which only changed the manner of comprehensive income presentation in the condensed

consolidated financial statements. The application of this update did not have a material impact on the Company's condensed consolidated financial statements.

In May 2011, the FASB issued ASU No. 2011-04 ("ASU 2011-04"), Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards, an amendment to FASB Accounting Standards Codification (“ASC”) Topic 820, Fair Value Measurement. The update revises the application of the valuation premise of highest and best use of an asset, the application of premiums and discounts for fair value determination, as well as the required disclosures for transfers between Level 1 and Level 2 fair value measures and the highest and best use of nonfinancial assets. The update provides additional disclosures regarding Level 3 fair value measurements and clarifies certain other existing disclosure requirements. ASU 2011-04 is effective for public companies for interim and annual periods beginning after December 15, 2011 with early adoption prohibited. The Company adopted ASU 2011-04 on January 1, 2012. The application of this update did not have a material impact on the Company's condensed consolidated financial statements.

3. Accounts Receivable/Advances on Contracts in Progress

Net accounts receivable, trade consists of the following:

(in thousands)	June 30, 2012	December 31, 2011
Amounts billed	$2,216	$3,327
Accrued revenue	150	177
	2,366	3,504
Less: Allowance for doubtful accounts	(56)	(40)
Net accounts receivable - trade	$2,310	$3,464
Advances on contracts in progress	$1,029	$2,232

Accrued revenue represents revenues recognized on contracts for which billings have not been presented to customers as of the balance sheet date. These amounts are billed and generally collected within one year.

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to pay amounts due. The Company actively pursues collection of past due receivables as the circumstances warrant. Customers are contacted to determine the status of payment and senior accounting and operations management are included in these efforts as is deemed necessary. A specific reserve will be established for past due accounts when it is probable that a loss has been incurred and the Company can reasonably estimate the amount of the loss. The Company does not record an allowance for government receivables and invoices backed by letters of credit as collection is reasonably assured. Bad debts are written off against the allowance when identified. There is no dollar threshold for account balance write-offs. While rare, a write-off is only recorded when all efforts to collect the receivable have been exhausted. The Company received payments of $5 thousand and $30 thousand for the six months ended June 30, 2012 and 2011, respectively, against amounts which had been previously reserved for in allowance for doubtful accounts.

Advances on contracts in progress represent billings that have been presented to the customer, as either deposits or progress payments against future shipments, but revenue has not been recognized.

4. Inventories and Deferred Costs of Goods Sold

Inventories, net of $1.0 million and $860 thousand of reserves at June 30, 2012 and December 31, 2011, respectively, consist of the following at:

(in thousands)	June 30, 2012	December 31, 2011
Raw materials	$1,998	$2,284
Work in process	2,797	3,871
Finished goods	1,271	998
Net inventory	$6,066	$7,153
Deferred cost of goods sold	$64	$180

Deferred cost of goods sold represents costs of equipment that has shipped to the customer and title has passed. The Company defers these costs until the related revenue is recognized.

5. Income (Loss) Per Share

The following table provides a reconciliation of the denominators of the Company's reported basic and diluted income (loss) per share computations for the periods ended:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Weighted average number of common and common equivalent shares outstanding – basic	8,562,633	8,362,633	8,562,633	8,361,514
Add: Net additional common shares upon assumed exercise of common stock options	—	304	—	—
Adjusted weighted average number of common and common equivalents shares outstanding – diluted	8,562,633	8,362,937	8,562,633	8,361,514

For the three and six months ended June 30, 2012, 878 and 2,287 shares, respectively and for the six months ended June 30, 2011, 11,564 shares, issuable relative to stock options were excluded from the calculation of diluted shares because their inclusion would have been anti-dilutive due to the Company's net loss position.

In addition, for the three and six months ended June 30, 2012, 668,446 and 658,446 shares of common stock, respectively, and for the three and six months ended June 30, 2011, 753,232 and 659,321 shares of common stock, respectively, issuable relative to stock options were excluded from the calculation of diluted shares because their inclusion would have been anti-dilutive, due to their exercise prices exceeding the average market price of the stock for the period.

6. Operating Segments and Related Information

The following table presents certain continuing operating division information in accordance with the provisions of ASC 280, "Segments Reporting."

(in thousands)	Solar	Biomedical	Total Company
For the three months ended June 30, 2012			
Net sales and revenues	$4,881	$1,739	$6,620
Operating income (loss) from continuing operations	$(1,999)	$212	$(1,787)
For the three months ended June 30, 2011			
Net sales and revenues	$11,655	$2,216	$13,871
Operating income from continuing operations	$727	$516	$1,243
For the six months ended June 30, 2012			
Net sales and revenues	$10,734	$3,361	$14,095
Operating income (loss) from continuing operations	$(3,543)	$147	$(3,396)
For the six months ended June 30, 2011			
Net sales and revenues	$27,433	$4,166	$31,599
Operating income (loss) from continuing operations	$(760)	$723	$(37)

The following table shows net sales and revenues by geographic area (based on customer location):

	Three Months Ended June 30,						Six Months Ended June 30,					
(in thousands)	2012	%		2011	%		2012	%		2011	%	
United States	$2,352	36	%	$3,638	26	%	$4,949	35	%	$14,162	45	%
Europe/Africa	444	7		1,902	14		2,686	19		2,561	8	
Asia	3,824	57		6,429	46		6,407	46		12,973	41	
Rest of the world	—	—		1,902	14		53	—		1,903	6	
	$6,620	100	%	$13,871	100	%	$14,095	100	%	$31,599	100	%

Revenues from contracts with United States government agencies for the three months ended June 30, 2012 and 2011 were approximately $448 thousand and $661 thousand or 7% and 5% of total net sales and revenues, respectively.

Revenues from contracts with United States government agencies for the six months ended June 30, 2012 and 2011 were approximately $872 thousand and $8.3 million or 6% and 26% of total net sales and revenues, respectively.

Revenues from the delivery of solar equipment to two customers accounted for 22% and 13%, respectively, of total net sales and revenues for the three month period ended June 30, 2012. Revenues from the delivery of biomedical services to one customer accounted for 12% of total net sales and revenues for the three month period ended June 30, 2012.

Revenues from the delivery of solar equipment to four customers accounted for 13%, 13%, 13% and 10%, respectively, of total net sales and revenues for the six month period ended June 30, 2012. Revenues from the delivery of biomedical services to one customer accounted for 11% of total net sales and revenues for the six month period ended June 30, 2012.

Revenues from the delivery of solar equipment to two customers accounted for 26% and 14%, respectively, of total net sales and revenues for the three month period ended June 30, 2011.

Revenues from the delivery of solar equipment and recurring revenues from the sale of solar cell materials to the same customer account for 2% and 23%, respectively, of total net sales and revenues for the six month period ended June 30, 2011. Revenues from the delivery of solar equipment to one customer account for 19% of total net sales and revenues for the six month period ended June 30, 2011.

Three customers represented approximately 16%, 15% and 13%, respectively, of net accounts receivable, trade at June 30, 2012 and three customers represented approximately 21%, 13% and 11%, respectively, of net accounts receivable, trade at December 31, 2011.

7. Intangible and Other Assets

Patents amounted to $118 thousand and $137 thousand, net of accumulated amortization of $786 thousand and $767 thousand, at June 30, 2012 and December 31, 2011, respectively. Licenses amounted to $63 thousand and $65 thousand, net of accumulated amortization of $12 thousand and $10 thousand, at June 30, 2012 and December 31, 2011, respectively. Patent cost is primarily composed of cost associated with securing and registering patents that the Company has been awarded or that have been submitted to, and the Company believes will be approved by the government. License cost is composed of the cost to acquire rights to the underlying technology or know-how. These costs are capitalized and amortized over their useful lives or terms, ordinarily five years using the straight-line method. There are no expected residual values related to these patents. Amortization expense, relating to patents and licenses, was approximately $27 thousand and $16 thousand for the three months ended June 30, 2012 and 2011, respectively. Amortization expense, relating to patents and licenses, was approximately $44 thousand and $32 thousand for the six months ended June 30, 2012 and 2011, respectively.

For disclosure purposes, the table below includes future amortization expense for patents and licenses owned by the Company as well as estimated amortization expense related to patents that remain pending at June 30, 2012 of $113 thousand. This estimated expense for patents pending assumes that the patents are issued immediately, and therefore are being amortized over five years on a straight-line basis. Estimated amortization expense for the periods ending December 31, is as follows:

(in thousands)	Amortization Expense
2012 remaining 6 months	$38
2013	71
2014	63
2015	42
2016	29
Thereafter	51
	$294

Also included in other assets are refundable deposits made by the Company of approximately $167 thousand and $163 thousand at June 30, 2012 and December 31, 2011, respectively.

8. Available-for-Sale Investments

Available-for-sale investments consist of assets held as part of the Spire Corporation Non-Qualified Deferred Compensation Plan. These investments have been classified as available-for-sale investments and are reported at fair value, with unrealized gains and losses included in accumulated other comprehensive income. The unrealized gain on these marketable securities was $310 thousand and $201 thousand as of June 30, 2012 and December 31, 2011, respectively.

(in thousands)	Accumulated Other Comprehensive Income
Balance, December 31, 2011	$201
Net change in unrealized gain on available for sale marketable securities	109
Balance, June 30, 2012	$310

9. Fair Value Measurements

The hierarchy established under ASC 820-10 gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). As required by ASC 820-10, the Company's available-for-sale investments are classified within the fair value hierarchy based on the lowest level of input that is significant to the fair value measurement. The three levels of the fair value hierarchy under ASC 820-10, and its applicability to the Company's available-for-sale investments, are described below:

Level 1 - Pricing inputs are quoted prices available in active markets for identical investments as of the reporting date. As required by ASC 820-10, the Company does not adjust the quoted price for these investments, even in situations where the Company holds a large position and a sale could reasonably impact the quoted price.

Level 2 - Pricing inputs are quoted prices for similar investments, or inputs that are observable, either directly or indirectly, for substantially the full term through corroboration with observable market data. Level 2 includes investments valued at quoted prices adjusted for legal or contractual restrictions specific to these investments.

Level 3 - Pricing inputs are unobservable for the investment, that is, inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability. Level 3 includes investments that are supported by little or no market activity.

Valuation Techniques

Fair value is a market-based measure considered from the perspective of a market participant who would buy the asset or assume the liability rather than the Company's own specific measure. All of the Company's fixed income securities are priced using a variety of daily data sources, largely readily-available market data and broker quotes. To validate these prices, the Company compares the fair market values of the Company's fixed income investments using market data from observable and corroborated sources. The Company also performs the fair value calculations for its common stock and mutual fund securities using market

data from observable and corroborated sources. In periods of market inactivity, the observability of prices and inputs may be reduced for certain instruments. This condition could cause an instrument to be reclassified from Level 1 to Level 2 or from Level 2 to Level 3. During the three and six months ended June 30, 2012, none of the Company's instruments were reclassified between Level 1 or Level 2.

The following table presents the financial instruments related to the Company’s available-for-sale investment carried at fair value on a recurring basis as of June 30, 2012 and December 31, 2011 by ASC 820-10 valuation hierarchy (as defined above).

(in thousands)	Balance as of June 30, 2012	Level 1	Level 2	Level 3
Cash and short term investments	$57	$57	$—	$—
Common stock				
Basic Materials	70	70	—	—
Consumer Goods	14	14	—	—
Financial	44	44	—	—
Healthcare	55	55	—	—
Industrial Goods	33	33	—	—
Services	75	75	—	—
Technology	143	143	—	—
Utilities	7	7	—	—
Total Common Stock	441	441	—	—
Mutual Fund				
Diversified Emerging Markets	166	—	166	—
Foreign Large Blend	131	—	131	—
Foreign Large Growth	179	—	179	—
Foreign Small/Mid Value	137	—	137	—
Large Growth	500	—	500	—
Small Blend	189	189	—	—
Value Fund	73	—	73	—
Total Mutual Fund	1,375	189	1,186	—
Fixed Income				
Domestic	653	—	653	—
International	34	—	34	—
Total Fixed Income	687	—	687	—
Total available-for-sale investments [1]	$2,560	$687	$1,873	$—
Percent of total	100 %	27 %	73 %	— %

(in thousands)	Balance as of December 31, 2011	Level 1	Level 2	Level 3
Cash and short term investments	$65	$65	$—	$—
Common Stock				
Basic Materials	72	72	—	—
Consumer Goods	18	18	—	—
Financial	48	48	—	—
Healthcare	53	53	—	—
Industrial Goods	22	22	—	—
Services	78	78	—	—
Technology	151	151	—	—
Total Common Stock	442	442	—	—
Mutual Fund				
Diversified Emerging Markets	155	—	155	—
Foreign Large Blend	123	—	123	—
Foreign Large Growth	171	—	171	—
Foreign Small/Mid Value	136	—	136	—
Value Fund	69	—	69	—
Large Growth	490	—	490	—
Small Blend Total	192	192	—	—
Total Mutual Funds	1,336	192	1,144	—
Fixed Income				
Domestic	535	—	535	—
International	27	—	27	—
Total Fixed Income	562	—	562	—
Total available for-sale-investments [1]	$2,405	$699	$1,706	$—
Percent of total	100 %	29 %	71 %	— %

[1] Changes in the fair value of available-for-sale investments are recorded in accumulated other comprehensive income, a component of stockholders' equity, in the Company's unaudited condensed consolidated balance sheets.

The carrying amounts reflected in the Company's unaudited condensed consolidated balance sheets for cash, accounts receivable, prepaid expenses and other current assets, accounts payable, accrued expenses, and capital lease obligations approximate fair value due to their short-term maturities. The fair value of the Company's revolving line of credit has been estimated by management based on the terms that it believes it could obtain in the current market for debt of the same terms and remaining maturities. Due to the short-term nature of the remaining maturities, frequency of amendments to its terms and the variable interest rates, the carrying value of the revolving line of credit approximates fair value at June 30, 2012 and December 31, 2011.

10. Notes Payable and Credit Arrangements

The Company has two separate credit facilities with Silicon Valley Bank (the "Bank" or "SVB"): (i) a Second Amended and Restated Loan and Security Agreement (as amended to date, the "Revolving Credit Facility") and (ii) an Amended and Restated Export-Import Bank Loan and Security Agreement (as amended to date, the "Ex-Im Facility") pursuant to which outstanding amounts under this facility are guaranteed by the Export-Import Bank of the United States (the "EXIM Bank"). The credit facilities provide an aggregate amount of $6 million under both facilities, with up to $2 million available under the Revolving Credit Facility and up to $4 million available under the Ex-Im Facility. These

credit facilities have a maturity date of December 29, 2012. In addition, a guidance line has been established to support letters of credit in an aggregate amount of up to $1.5 million through December 29, 2012. If the Company achieves certain levels of liquidity, based on cash on hand and availability under the credit facility, the Company will not be required to cash collateralize letters of credit issued under this guidance line.

The Company's obligations under these two credit facilities, as well as the guidance line, are secured by substantially all of the assets of the Company. Advances under the Revolving Credit Facility are limited to 80% of eligible receivables. Advances under the Ex-Im Facility are limited to (i) 90% of eligible receivables subject to a suitable foreign currency hedge agreement if applicable, plus (ii) 75% of all other eligible receivables billed in foreign currency, plus (iii) 50% of the value of eligible inventory, as defined. Under the Revolving Credit Facility and the Ex-Im Facility, as long as any commitment remains outstanding under the facilities, the Company must comply with a financial covenant by maintaining a minimum balance cash of $1.0 million. In addition, until all amounts under the credit facilities with the Bank are repaid, covenants under the credit facilities impose restrictions on the Company's ability to, among other things, incur additional indebtedness, create or permit liens on the Company's assets, merge, consolidate or dispose of assets (other than in the ordinary course of business), make dividend and other restricted payments, make certain debt or equity investments, make certain acquisitions, engage in certain transactions with affiliates or change the business conducted by the Company. Any failure by the Company to comply with the covenants and obligations under the credit facilities could result in an event of default, in which case the Bank may be entitled to declare all amounts owed to be due and payable immediately.

Under the credit facilities, interest on outstanding borrowings accrues at a rate per annum equal to the greater of (i) the prime rate plus 2.5% or (ii) 7.0%. In addition, if the Company achieves certain levels of liquidity, based on cash on hand and availability under the credit facility, the Company will have a 0.5% lower interest rate.

Advances outstanding under the Second Restated Revolving Credit Facility were $800 thousand and zero at June 30, 2012 and December 31, 2011, respectively. Advances outstanding under the Restated Ex-Im Facility were $357 thousand and $1.2 million at June 30, 2012 and December 31, 2011, respectively. As of June 30, 2012, the interest rate per annum on the Second Restated Revolving Credit Facility and Restated Ex-Im Facility was 6.0% and 6.0%, respectively. The Company has utilized$516 thousand and $1.4 million of the guidance line at June 30, 2012 and December 31, 2011, respectively. Combined availability under the Second Restated Revolving Credit Facility and the Restated Ex-Im Facility was $884 thousand as of June 30, 2012.

11. Stock-Based Compensation and Stock Option Plan

The Company has recognized stock-based compensation expense of approximately $66 thousand and $100 thousand for the three months ended June 30, 2012 and 2011, respectively. The Company has recognized stock-based compensation expense of approximately $121 thousand and $206 thousand for the six months ended June 30, 2012 and 2011, respectively. The total non-cash, stock-based compensation expense included in the unaudited condensed consolidated statements of operations for the periods presented is included in the following expense categories:

	Three Months Ended June 30,		Six Months Ended June 30,	
(in thousands)	2012	2011	2012	2011
Cost of contract research, services	$6	$6	$10	$11
Cost of goods sold	10	20	25	42
Administrative and selling	50	74	86	153
Total stock-based compensation	$66	$100	$121	$206

At June 30, 2012, the Company had outstanding options under two option plans: the 1996 Equity Incentive Plan (the “1996 Plan”) and the 2007 Stock Equity Plan (the “2007 Plan”, together the “Plans”). Both Plans were approved by stockholders and provided that the Board of Directors may grant options to purchase the Company’s common stock to key employees and directors of the Company. Incentive and non-qualified options must be granted at least at the fair market value of the common stock or, in the case of certain optionees, at 110% of such fair market value at the time of grant. The options may be exercised, subject to certain vesting requirements, for periods up to ten years from the date

of issue. The 1996 Plan expired with respect to the issuance of new grants as of December 10, 2006. Accordingly, future grants may be made only under the 2007 Plan.

A summary of options outstanding under the Plans as of June 30, 2012 and changes during the six month period is as follows:

	Number of Shares	Weighted-Average Exercise Price	Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Options Outstanding at December 31, 2011	793,107	$ 6.40		
Granted	20,000	$ 0.97		
Exercised	—	$ —		
Cancelled/expired	(134,661)	$ 5.06		
Options Outstanding at June 30, 2012	678,446	$ 6.51	6.21	$—
Options Exercisable at June 30, 2012	575,196	$ 6.76	5.96	$—
Option vested and expected to vest at June 30, 2012	671,324	$ 6.78	5.93	$—

Compensation expense related to stock options to be charged in future periods amounts to approximately $207 thousand at June 30, 2012 and will be recognized over a weighted-average period of 1.5 years.

The per-share weighted-average fair value of stock options granted during the three and six months ended June 30, 2012 was $0.67 and $0.67, respectively, and $2.40 and $2.60 for the three and six months ended June 30, 2011, respectively, on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

Year	Expected Dividend Yield	Risk-Free Interest Rate	Expected Option Life	Expected Volatility Factor
2012	—	0.96%	5.1 years	87.8%
2011	—	2.18%	5.1 years	75.8%

The risk free interest rate reflects treasury yields rates over a term that approximates the expected option life. The expected option life is calculated based on historical lives of all options issued under the Plans. The expected volatility factor is determined by measuring the actual stock price volatility over a term equal to the expected life of the options granted.

12. Discontinued Operations and Assets Held for Sale

In accordance with ASC 205-20, Presentation of Financial Statements - Discontinued Operations, the accompanying unaudited condensed consolidated balance sheets, statements of operations and cash flows present the results of operations and assets and liabilities of the Semiconductor Business Unit and the liabilities of the Medical Products Business Unit as discontinued operations.

Sales of Medical Products Business Unit

During the second quarter of 2009, the Company began pursuing an exclusive sales process of the Medical Products Business Unit. The Company (i) determined that the Medical Products Business Unit was a separate component of the Company's business as, historically, management reviewed separately the Medical Products Business Unit's financial results apart from the Company's ongoing continuing operations, (ii) eliminated the Medical Products Business Unit's financial results from ongoing operations and (iii) determined that the Company will have no further continuing involvement in the operations of the Medical Products Business Unit or cash flows from the Medical Products Business Unit after the sale.

On December 14, 2009, the Company completed the sale of the Medical Products Business Unit to Bard. The purchase price for the Medical Products Business Unit was $12.4 million, including (i) $9.4 million that was paid in

cash to the Company at closing, (ii) $100 thousand that was paid in cash at closing to two of the Company's employees, including Mark Little, Chief Executive Officer of Spire Biomedical, as consideration for their execution of non competition agreements, and (iii) $2.9 million that was paid in cash to the Company in the second quarter of 2010 based on the achievement of certain milestones described below (the “Contingent Purchase Price”).

Certain of the assets were transferred to Bard at the closing, and certain other assets (the “Contingent Deferred Assets”) were transferred to Bard upon the completion of a product recall related to such assets, which occurred in the second quarter of 2010. Until the Contingent Deferred Assets were transferred by the Company, it continued to manufacture and supply to Bard certain hemodialysis catheter products under the terms of a distribution agreement (the “Transition Period”). The Contingent Deferred Assets were transferred to Bard and Bard paid $1.5 million of the Contingent Purchase Price to the Company in the second quarter of 2010. In addition, Bard paid $1.4 million of the remaining Contingent Purchase Price to the Company in the second quarter of 2010 based upon the achievement of milestones related to the manufacture and supply of certain quantities of hemodialysis catheter products under the distribution agreement. The transfer price for hemodialysis catheter products delivered

to Bard under the distribution agreement was equal to the Company's standard costs of goods, including related overhead, without mark-up and calculated in accordance with U.S. generally accepted accounting principles.

The Company initiated a voluntary recall of certain catheters based upon three field complaints of catheter malfunctions received in the third quarter of 2009. No patient injury or complications resulted from the malfunction. It was determined that under certain molding conditions, there was a possibility that insufficient bonding may occur which could cause the catheter to malfunction. As it could not be isolated to a particular lot, the Company initiated a voluntary recall of any inventory held by our distributors and their customers. As the manufacturer of record, the Company is responsible for ensuring that the product meets the product specifications and the associated product liability that may result in failure those specifications. The voluntary recall was initiated in October 2009 and in February 2010, the Company determined that it had achieved a 100% effectiveness rating based upon the recall criteria. The U.S. Food and Drug Administration advised the Company in June 2010 that the recalls were terminated.

During the fourth quarter of 2011, the Company received a cash payment of $2.5 million in settlement of a breach of contract dispute with a contract manufacturer and recorded a net gain on legal settlement of $2.3 million in the same quarter.

Sale of Semiconductor Business Unit

During the first quarter of 2012, the Company began pursuing an exclusive sales process of the Company's Semiconductor Business Unit. The Company (i) determined that the Semiconductor Business Unit was a separate component of the Company's business as, historically, management reviewed separately the Semiconductor Business Unit's financial results apart from the Company's ongoing continuing operations, (ii) eliminated the Semiconductor Business Unit's financial results from ongoing operations and (iii) determined that the Company will have no further continuing involvement in the operations of the Semiconductor Business Unit or cash flows from the Semiconductor Business Unit after the sale.

On March 9, 2012, the Company completed the sale of the Semiconductor Business Unit to Masimo. The asset purchase agreement provided that the aggregate purchase price for the Semiconductor Business Unit was $8.0 million plus the assumption of $500 thousand in liabilities, with the cash portion of the purchase price being reduced by retained cash, accounts receivable and liabilities assumed by Masimo in excess of the agreed upon assumed liabilities. As a result, in the first quarter of 2012 the Company received approximately $7.3 million in cash (less the escrow described below) and incurred legal and transaction related fees of $425 thousand and Masimo assumed approximately $1.2 million in liabilities. Of the purchase price, approximately $718 thousand was deposited into an indemnity escrow account for fifteen months to partially secure the Company's obligations for any indemnity claims under the asset purchase agreement. In connection with this transaction, the lease for the premises in Hudson, New Hampshire where the Semiconductor Business Unit was located, was terminated on March 9, 2012, and the Company was released from all future obligations under the lease as of such date.

Summarized Financial Information of the Discontinued Operations

The liabilities of the Semiconductor Business Unit as of June 30, 2012 and the assets and liabilities of the Semiconductor Business Unit and liabilities of the Medical Products Business Unit as of December 31, 2011 are as follows:

(in thousands)	June 30, 2012	December 31, 2011
Assets		
Current Assets		
Accounts receivable - trade, net	$—	$307
Inventories, net	—	337
Prepaid expenses and other current assets	—	50
Total current assets of discontinued operations and assets held for sale	—	694
Net property and equipment	—	1,927
Intangibles & other assets, net	—	66
Total Assets of discontinued operations and assets held for sale	$—	$2,687
Liabilities of Discontinued Operations		
Current liabilities of discontinued operations		
Accounts payable	$2	$1,206
Accrued liabilities	21	253
Current portion of advances on contracts in progress	—	195
Total current liabilities of discontinued operations	23	1,654
Other long-term liabilities	—	215
Total liabilities of discontinued operations	$23	$1,869

The Medical Products Business Unit had no results of operations for the three and six months ended June 30, 2012 and June 30, 2011. Condensed results of operations relating to the Semiconductor Business Unit for the three and six months ended June 30, 2012 and June 30, 2011 are as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(in thousands)	2012	2011	2012	2011
Net sales and revenues	$—	$792	$425	$1,505
Gross margin	$—	$(189)	$(296)	$(594)
Loss from discontinued operations before sale of business unit	$—	$(495)	$(430)	$(1,198)
Gain on sale of business unit, net of transaction expenses	—	—	5,449	—
Income tax provision	—	—	(2,008)	—
Net income (loss) from discontinued operations, net of tax	$—	$(495)	$3,011	$(1,198)

13. Subsequent Events

The Company evaluated subsequent events through the date of this filing and had no subsequent events to report.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Management's Discussion and Analysis of Financial Condition and Results of Operations section and other parts of this Report contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements involve risks and uncertainties. These statements relate to our future plans, objectives, expectations and intentions. These statements may be identified by the use of words such as "may", "could", "would", "should", "will", "expects", "anticipates", "intends", "plans", "believes", "estimates", and similar expressions. Our actual resul the timing of certain events may differ significantly from the results and timing described in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those factors discussed or referred to in the Annual Report on Form 10-K for the year ended December 31, 2011 and in subsequent period reports filed with the Securities and Exchange Commission, including this report. The following discussion and analysis of our financial condition and results of operations should be read in light of those factors and in conjunction with our accompanying Consolidated Financial Statements, including the Notes thereto.

Overview

We develop, manufacture and market highly-engineered products and services in two principal business areas: (i) capital equipment and systems for the photovoltaic solar industry and (ii) biomedical, generally bringing to bear expertise in materials technologies, surface science and thin films across both business areas, discussed below.

In the photovoltaic solar area, we develop, manufacture and market specialized equipment for the production of terrestrial photovoltaic modules from solar cells and provide photovoltaic systems for grid connected applications in the commercial markets. Our equipment has been installed in approximately 200 factories in 50 countries. The equipment market is very competitive with major competitors located in Japan and Switzerland. Our flagship product is our Sun Simulator which tests module performance. Our other product offerings include turn-key module lines and to a lesser extent other individual equipment. To compete we offer other services such as training and assistance with module certification. We also provide turn-key services to our customers to backward integrate to solar cell manufacturing. At times, we supply materials such as solar cells to certain customers.

In the biomedical area, we provide value-added surface treatments to manufacturers of orthopedic and other medical devices that enhance the durability, antimicrobial characteristics or other material characteristics of their products; and perform sponsored research programs into practical applications of advanced biomedical and biophotonic technologies.

On March 9, 2012, we completed the sale of our semiconductor business unit, which provides semiconductor foundry services, operates a semiconductor foundry and fabrication facility and is engaged in the business of wafer epitaxy, foundry services, and device fabrication for the defense, medical, telecommunications and consumer products markets (the "Semiconductor Business Unit"), to Masimo Corporation ("Masimo"). See Note 12 to the unaudited condensed consolidated financial statements.

On December 14, 2009, we completed the sale of our Medical Products Business Unit, which develops and markets coated and uncoated hemodialysis catheters and related devices for the treatment of chronic kidney disease (the "Medical Products Business Unit"), to Bard Access Systems, Inc. ("Bard"). Accordingly, the results of operations and liabilities of the Medical Products Business Unit are being presented herein as discontinued operations. See Note 12 to the unaudited condensed consolidated financial statements.

Operating results will depend upon revenue growth and product mix, as well as the timing of shipments of higher priced products from our solar equipment line and delivery of solar systems. Export sales, which amounted to 64%

and 65% of net sales and revenues for the three and six months ended June 30, 2012, respectively, and 74% and 55% of net sales and revenues for the three and six months ended June 30, 2011, respectively, continue to constitute a significant portion of our net sales and revenues.

Results of Operations

The following table sets forth certain items as a percentage of net sales and revenues for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Net sales and revenues	100 %	100 %	100 %	100 %
Cost of sales and revenues	(81)	(61)	(77)	(73)
Gross margin	19	39	23	27
Selling, general and administrative expenses	(45)	(28)	(46)	(25)
Internal research and development expenses	(1)	(2)	(1)	(2)
Operating income (loss) from continuing operations	(27)	9	(24)	—
Other expense, net	(1)	—	—	—
Income (loss) from continuing operations before income tax benefit	(28)	9	(24)	—
Income tax benefit - continuing operations	—	—	14	—
Income (loss) from continuing operations	(28)	9	(10)	—
Income (loss) from discontinued operations, net of tax	—	(4)	21	(4)
Net income (loss)	(28)%	5 %	11 %	(4)%

Overall

Our total net sales and revenues for the six months ended June 30, 2012 were $14.1 million as compared to $31.6 million for the six months ended June 30, 2011, which represents a decrease of $17.5 million or 55%. The decrease was primarily attributable to a $16.7 million decrease in solar revenue and a decrease of $805 thousand in biomedical revenue.

Solar Business Unit

Sales in our solar business unit decreased 61% during the six months ended June 30, 2012 to $10.7 million as compared to $27.4 million for the six months ended June 30, 2011. The decrease is the result of no solar cell material revenue in 2012 compared to $7.2 million in 2011, due to the completion of definite delivery commitments to a solar cell materials contract in the first quarter of 2011 and a decrease in solar module equipment sales in 2012 of $9.8 million.

Biomedical Business Unit

Revenues on our biomedical business unit decreased 19% during the six months ended June 30, 2012 to $3.4 million as compared to $4.2 million for the six months ended June 30, 2011. The decrease was primarily attributable to a decrease in revenue from our orthopedics coating services and, to a lesser extent, a decrease in revenue from our research and development contracts.

Three and Six Months Ended June 30, 2012 Compared to Three and Six Months Ended June 30, 2011

Net Sales and Revenues

The following table categorizes our net sales and revenues for the periods presented:

	Three Months Ended June 30,		Decrease	
(in thousands)	2012	2011	$	%

Sales of goods	$4,449	$11,661	(7,212	) (62	)%
Contract research and services revenues	2,171	2,210	(39	) (2	)%
Net sales and revenues	$6,620	$13,871	(7,251	) (52	)%

The 62% decrease in sales of goods for the three months ended June 30, 2012 as compared to the three months ended June 30, 2011 was primarily due to a decrease of $7.3 million in solar module manufacturing equipment revenues, partially offset by a slight increase in solar systems and advanced technology center revenues. The decrease in solar module equipment sales of 63% in 2012 as compared to 2011 was primarily due to a decrease in individual module equipment units delivered in 2012.

The 2% decrease in contract research and services revenues for the three months ended June 30, 2012 as compared to the three months ended June 30, 2011 is primarily attributable to a decrease of $468 thousand in biomedical revenue, partially offset by an increase of $429 thousand in solar research and development revenue. Revenues from our biomedical services decreased 21% in 2012 as compared to 2011 as a result of a decrease in the number and value of biomedical orders in 2012 along with revenue recognized on a large biomedical funded research project favorably impacting 2011. The increase in revenues from our solar research and development services in 2012 as compared to 2011 was a result of revenue recognized on three government funded solar research projects in 2012.

The following table categorizes our net sales and revenues for the periods presented:

	Six Months Ended June 30,		Decrease	
(in thousands)	2012	2011	$	%
Sales of goods	$9,938	$27,378	(17,440)	(64)%
Contract research and services revenues	4,157	4,221	(64)	(2)%
Net sales and revenues	$14,095	$31,599	(17,504)	(55)%

The 64% decrease in sales of goods for the six months ended June 30, 2012 as compared to the six months ended June 30, 2011 was primarily due to a decrease of $9.8 million in solar module manufacturing equipment revenues, a decrease of $7.2 million in solar cell materials revenue, and a decrease of $423 thousand in solar systems revenues. The decrease in solar module equipment sales of 50% in 2012 as compared to 2011 was primarily due to a decrease in individual module equipment units delivered in 2012. The decrease in sales of solar cell materials, all to one customer, of 100% in 2012 as compared to 2011 was due to the completion of definite delivery commitments to a solar cell materials contract in the first quarter of 2011. The decrease in sales of solar systems of 90% in 2012 as compared to 2011 was primarily due to the completion of a photovoltaic system project in 2011.

The 2% decrease in contract research and services revenues for the six months ended June 30, 2012 as compared to the six months ended June 30, 2011 is primarily attributable to a decrease of $796 thousand in biomedical revenue, partially offset by an increase of $732 thousand in solar research and development revenue. Revenues from our biomedical services decreased 19% in 2012 as compared to 2011 as a result of a decrease in the number and value of biomedical orders in 2012 along with revenue recognized on a large biomedical funded research project favorably impacting 2011. Revenues from our solar research and development services increased 1,145% in 2012 as compared to 2011 as a result of revenue recognized on three government funded solar research projects in 2012.

Cost of Sales and Revenues

The following table categorizes our cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

	Three Months Ended June 30,					Increase (Decrease)	
(in thousands)	2012	%	2011	%		$	%
Cost of goods sold	$4,134	93	% $7,417	64	%	$(3,283)	(44)%
Cost of contract research and services	1,240	57	% 1,115	50	%	125	11 %
Net cost of sales and revenues	$5,374	81	% $8,532	62	%	$(3,158)	(37)%

Cost of goods sold decreased 44% for the three months ended June 30, 2012 as compared to the three months ended June 30, 2011, primarily as a result of decreased costs related to solar module equipment, partially offset by a slight increase in solar systems costs. The decrease in solar module equipment costs of 46% in 2012 as compared to 2011 was primarily due to a decrease in associated revenue. As a percentage of sales, cost of goods sold was 93% of sales of goods in 2012 as compared to 64% of sales of goods in 2011. This increase in the percentage of sales in 2012 is due primarily to a lower utilization of capacity and an unfavorable product mix in the solar business unit.

Cost of contract research and services increased 11% for the three months ended June 30, 2012 as compared to the three months ended June 30, 2011, primarily as a result of increased costs related to solar research and development services, partially offset by a slight decrease in costs related to biomedical services. The increase in solar research and development services costs of 249% in 2012 as compared to 2011 was primarily due to an increase in associated revenue from three government funded solar research projects. Cost of contract research and services as a percentage of related revenue increased to 57% of related revenues

in 2012 from 50% in 2011, primarily due to lower margin orders in biomedical services.

Cost of sales and revenues also includes approximately $16 thousand and $26 thousand of stock-based compensation for the three months ended June 30, 2012 and 2011, respectively.

The following table categorizes our cost of sales and revenues for the periods presented, stated in dollars and as a percentage of related sales and revenues:

	Six Months Ended June 30,						Increase (Decrease)		
(in thousands)	2012	%		2011	%		$	%	
Cost of goods sold	$8,422	85	%	$20,764	76	%	$(12,342)	(59	)%
Cost of contract research and services	2,474	60	%	2,378	56	%	96	4	%
Net cost of sales and revenues	$10,896	77	%	$23,142	73	%	$(12,246)	(53	)%

Cost of goods sold decreased 59% for the six months ended June 30, 2012 as compared to the six months ended June 30, 2011, primarily as a result of decreased costs related to solar cell materials, solar module equipment and solar systems. The decrease in costs of solar cell materials, all to one customer, of 100% in 2012 as compared to 2011 was due to the completion of definite delivery commitments to a solar cell materials contract in the first quarter of 2011. The decrease in solar module equipment costs of 39% in 2012 as compared to 2011 was primarily due to a decrease in associated revenue. The decrease of solar system costs of 61% in 2012 as compared to 2011 was primarily due to the completion of a photovoltaic system project in 2011 as compared to none in 2012. As a percentage of sales, cost of goods sold was 85% of sales of goods in 2012 as compared to 76% of sales of goods in 2011. This increase in the percentage of sales in 2012 is due primarily to a lower utilization of capacity and an unfavorable product mix in the solar business unit.

Cost of contract research and services increased 4% for the six months ended June 30, 2012 as compared to the six months ended June 30, 2011, primarily as a result of increased costs related to solar research and development services, partially offset by decreased costs related to biomedical services. The increase in solar research and development services costs of 262% in 2012 as compared to 2011 was primarily due to an increase in associated revenue from three government funded solar research projects. The decrease in biomedical services costs of 7% in 2012 as compared to 2011 was primarily due to a decrease in associated revenue. Cost of contract research and services as a percentage of related revenue increased to 60% of related revenues in 2012 from 56% in 2011, primarily due to lower margin orders in biomedical services.

Cost of sales and revenues also includes approximately $35 thousand and $53 thousand of stock-based compensation for the three months ended June 30, 2012 and 2011, respectively.

Operating Expenses

The following table categorizes our operating expenses for the periods presented, stated in dollars and as a percentage of total sales and revenues:

	Three Months Ended June 30,						Decrease		
(in thousands)	2012	%		2011	%		$	%	
Selling, general and administrative	$2,940	45	%	$3,893	28	%	$(953)	(24	)%
Internal research and development	93	1	%	203	2	%	(110)	(54	)%
Operating expenses	$3,033	46	%	$4,096	30	%	$(1,063)	(26	)%

Selling, General and Administrative Expenses

Selling, general and administrative expense decreased 24% in the three months ended June 30, 2012 as compared to the three months ended June 30, 2011, primarily as a result of a decrease in agent commissions, marketing and employee related expenses in the solar business unit. In addition, a benefit was realized related to the change in value of the deferred compensation plan. Selling, general and administrative expense increased to 45% of sales and revenues in 2012 as compared to 28% in 2011. The increase was primarily due to the decrease in sales and revenues.

Selling, general and administrative expenses include approximately $50 thousand and $74 thousand of stock-based compensation for the three months ended June 30, 2012 and 2011, respectively.

Internal Research and Development

Internal research and development expense decreased 54% in the three months ended June 30, 2012 as compared to the three months ended June 30, 2011, primarily as a result of lower levels of research and development spent in the solar group. As a percentage of sales and revenue, internal research and development expenses decreased slightly in 2012 when compared to 2011.

The following table categorizes our operating expenses for the periods presented, stated in dollars and as a percentage of total sales and revenues:

	Six Months Ended June 30,						Decrease		
(in thousands)	2012	%		2011	%		$	%	
Selling, general and administrative	$6,404	46	%	$7,958	25	%	$(1,554)	(20)	%
Internal research and development	191	1	%	536	2	%	(345)	(64)	%
Operating expenses	$6,595	47	%	$8,494	27	%	$(1,899)	(22)	%

Selling, General and Administrative Expenses

Selling, general and administrative expense decreased 20% in the six months ended June 30, 2012 as compared to the six months ended June 30, 2011, primarily as a result of a decrease in commissions, marketing, rent and employee related expenses in the solar business unit. Selling, general and administrative expense increased to 46% of sales and revenues in 2012 as compared to 25% in 2011. The increase was primarily due to the decrease in sales and revenues.

Selling, general and administrative expenses include approximately $86 thousand and $153 thousand of stock-based compensation for the six months ended June 30, 2012 and 2011, respectively.

Internal Research and Development

Internal research and development expense decreased 64% in the six months ended June 30, 2012 as compared to the six months ended June 30, 2011, primarily as a result of lower levels of research and development spent in the solar group. As a percentage of sales and revenue, internal research and development expenses decreased slightly in 2012 when compared to 2011.

Other Expense, Net

We incurred interest expense of $36 thousand and $34 thousand for the three months ended June 30, 2012 and 2011, respectively. We had currency exchange gains of approximately $1 thousand and currency exchange losses of approximately $5 thousand during the three months ended June 30, 2012 and 2011, respectively.

We incurred interest expense of $67 thousand and $65 thousand for the six months ended June 30, 2012 and 2011, respectively. We had currency exchange gains of approximately $3 thousand and currency exchange losses of approximately $2 thousand during the six months ended June 30, 2012 and 2011, respectively.

Income Taxes

We recorded an income tax benefit on our loss from continuing operations of $2.0 million during the six months ended June 30, 2012, which was offset by a provision on our income from discontinued operations of $2.0 million during the six months ended June 30, 2012. Gross federal net operating loss carryforwards were approximately $14 million as of December 31, 2011 and expire at various times through 2031. We have a full valuation allowance

recorded against the net deferred tax assets at June 30, 2012 due to uncertainty regarding realization of these assets in the future.

We recorded a state income tax provision of $15 thousand for the three and six months ended June 30, 2011, respectively.

Loss from Discontinued Operations

During the first quarter of 2012, we began pursuing an exclusive sales process of our Semiconductor Business Unit. On March 9, 2012, we completed the sale of the Semiconductor Business Unit to Masimo. Accordingly, the results of operations and assets and liabilities of the Semiconductor Business Unit are being presented herein as discontinued operations.

We recorded net income from discontinued operations of $3.0 million for the six months ended June 30, 2012. Included in discontinued operations for the six months ended June 30, 2012 is a gain on sale of business unit to Masimo of $5.4 million

and an income tax provision of $2.0 million. Included in the gain of $5.4 million is proceeds received from Masimo of $8.0 million, less assets and liabilities assumed by Masimo of $2.1 million and legal and professional fees related to complete the sale of $425 thousand.

We recorded a loss from discontinued operations of $495 thousand and $1.2 million for the three and six months ended June 30, 2011, respectively. See Note 12 to the unaudited condensed consolidated financial statements.

Net Income (Loss)

We reported net loss of $1.8 million and a net income $694 thousand for the three months ended June 30, 2012 and 2011, respectively. Net loss increased approximately $2.5 million, primarily due to a $4.1 million decline in gross margin associated with lower revenue, partially offset by a $1.1 million decline in operating expenses and a loss of $495 thousand from discontinued operations recorded in the three month period ended June 30, 2011.

We reported net income of $1.5 million and a net loss of $1.3 million for the six months ended June 30, 2012 and 2011, respectively. Net income increased approximately $2.9 million, primarily due to a $6.2 million improvement from discontinued operations before tax and $1.9 million decline in operating expenses, partially offset by a $5.3 million decline in gross margin associated with lower revenue.

Liquidity and Capital Resources

(in thousands)	June 30, 2012	December 31, 2011	Increase $	%	
Cash and cash equivalents	$7,199	$4,758	$2,441	51	%
Working capital	$9,673	$5,700	$3,973	70	%

Cash and cash equivalents increased due to cash provided by operating and investing activities, primarily due to one time payments received in the first quarter of 2012 totaling $6.6 million related to the sale of the Semiconductor Business Unit included in discontinued operations. The overall increase in working capital is due to an increase in cash and a decrease in current liabilities, primarily accounts payable, advances on contracts in progress and liabilities of discontinued operations, partially offset by a decline in accounts receivable, inventory, deposits on equipment for inventory and assets of discontinued operations. We have historically funded our operating cash requirements using operating cash flow, proceeds from the sale and licensing of technology and assets and proceeds from the sale of equity securities.

There are no material commitments by us for capital expenditures. At June 30, 2012, our accumulated deficit was approximately $12.5 million, compared to accumulated deficit of approximately $14.1 million as of December 31, 2011.

During the first quarter of 2012, we began pursuing an exclusive sales process of our Semiconductor Business Unit and on March 9, 2012, we completed the sale of the Semiconductor Business Unit to Masimo Corporation. The asset purchase agreement provided that the aggregate purchase price for the Semiconductor Business Unit was $8.0 million plus the assumption of $500 thousand in liabilities, with the cash portion of the purchase price being reduced by retained cash and liabilities assumed by Masimo in excess of $500 thousand. As a result, in the fist quarter of 2012 we received approximately $7.3 million in cash (less the escrow described below) and Masimo assumed approximately $1.2 million in liabilities. Of the purchase price, approximately $717 thousand was deposited into an indemnity escrow account for fifteen months to partially secure our obligations for any indemnity claims under the asset purchase agreement. In connection with this transaction, the lease for the premises in Hudson, New Hampshire where the Semiconductor Business Unit was located was terminated on March 9, 2012, and we were released from all future

obligations under the lease as of such date. See Note 12 to the unaudited condensed consolidated financial statements.

We have numerous options on how to fund future operational losses or working capital needs, including but not limited to sales of equity, bank debt or the sale or license of assets and technology, as we have done in the past; however, there are no assurances that we will be able to sell equity, obtain or access bank debt, or sell or license assets or technology on a timely basis and at appropriate values. We have developed several plans including cost containment efforts and potential outside financing to offset a decline in business due to global economic conditions. As a result, we believe we have sufficient resources to finance our current operations through at least June 30, 2013.

Loan Agreements

We have two separate credit facilities with Silicon Valley Bank (the “Bank” or “SVB”): (i) a Second Amended and Restated

Loan and Security Agreement (as amended to date, the "Revolving Credit Facility") and (ii) an Amended and Restated Export-Import Bank Loan and Security Agreement (as amended to date, the "Ex-Im Facility") pursuant to which outstanding amounts under this facility are guaranteed by the Export-Import Bank of the United States (the "EXIM Bank"). The credit facilities provide an aggregate credit line of $6 million under both facilities, with up to $2 million available under the Revolving Credit Facility and up to $4 million available under the Ex-Im Facility. These credit facilities have a maturity date of December 29, 2012. In addition, a guidance line has been established to support letters of credit in an aggregate amount of up to $1.5 million through December 29, 2012. If we achieve certain levels of liquidity, based on cash on hand and availability under the credit facility, we will not be required to cash collateralize letters of credit issued under this guidance line.

Our obligations under these two credit facilities, as well as the guidance line, are secured by substantially all of our assets. Advances under the Revolving Credit Facility are limited to 80% of eligible receivables. Advances under the Ex-Im Facility are limited to (i) 90% of eligible receivables subject to a suitable foreign currency hedge agreement if applicable, plus (ii) 75% of all other eligible receivables billed in foreign currency, plus (iii) 50% of the value of eligible inventory, as defined. Under the Revolving Credit Facility and the Ex-Im Facility, as long as any commitment remains outstanding under the facilities, we must comply with a financial covenant by maintaining a minimum cash balance of $1.0 million. In addition, until all amounts under the credit facilities with the Bank are repaid, covenants under the credit facilities impose restrictions on our ability to, among other things, incur additional indebtedness, create or permit liens on our assets, merge, consolidate or dispose of assets (other than in the ordinary course of business), make dividend and other restricted payments, make certain debt or equity investments, make certain acquisitions, engage in certain transactions with affiliates or change the business conducted by us. Any failure by us to comply with the covenants and obligations under the credit facilities could result in an event of default, in which case the Bank may be entitled to declare all amounts owed to be due and payable immediately.

Under the credit facilities, interest on outstanding borrowings accrues at a rate per annum equal to the greater of (i) the prime rate plus 2.5% or (ii) 7.0%. In addition, if we achieve certain levels of liquidity, based on cash on hand and availability under the credit facility, we will have a 0.5% lower interest rate.

Advances outstanding under the Revolving Credit Facility were $800 thousand and zero at June 30, 2012 and December 31, 2011, respectively. Advances outstanding under the Ex-Im Facility were $357 thousand and $1.2 million at June 30, 2012 and December 31, 2011, respectively. As of June 30, 2012, the interest rate per annum on the Revolving Credit Facility and the Ex-Im Facility was 6.0% and 6.0%, respectively. We have utilized $516 thousand and $1.4 million of the guidance line at June 30, 2012 and December 31, 2011, respectively. Combined availability under the Revolving Credit Facility and the Ex-Im Facility was $884 thousand as of June 30, 2012.

Foreign Currency Fluctuation

We sell almost exclusively in U.S. dollars, generally against an irrevocable confirmed letter of credit through a major United States bank. Accordingly, we are not directly affected by foreign exchange fluctuations on our current sales orders. However, fluctuations in foreign exchange rates do have an effect on our customers' access to U.S. dollars and on the pricing competition on certain pieces of equipment that we sell in selected markets. We bear the risk of any currency fluctuations that may be associated with purchase commitments. We attempt to hedge known transactions when possible to minimize foreign exchange risk. We had no hedging activity during the first six months of 2012 and 2011. Foreign exchange gain (loss) included in other expense, net, was a gain of approximately $1 thousand and a loss of approximately $5 thousand during the three months ended June 30, 2012 and 2011, respectively, and was a gain of approximately $3 thousand and a loss of approximately $2 thousand during the six months ended June 30, 2012 and 2011, respectively.

Related Party Transactions

On November 30, 2007, we entered into a new Lease Agreement (the “Bedford Lease”) with SPI-Trust, a Trust of which Roger G. Little, Chairman of the Board, Chief Executive Officer and President of the Company, is the sole trustee and principal beneficiary, with respect to 144,230 square feet of space comprising the entire building in which we have occupied space since December 1, 1985. The term of the Bedford Lease commenced on December 1, 2007 and was originally set to expire on November 30, 2012. The annual rental rate for the first year of the Bedford Lease was $12.50 per square foot on a triple net basis, whereby the tenant is responsible for operating expenses, taxes and maintenance of the building. The annual rental rate increased on each anniversary by $0.75 per square foot.

On September 17, 2010, we entered into the First Amendment to Lease Agreement with SPI-Trust to amend the Bedford Lease. The term of the Bedford Lease was extended for an additional five (5) years to expire on November 30, 2017. The annual rental rate for the first year of the extended term (December 1, 2012 through November 30, 2013) is $16.00 per square foot on a triple net basis, whereby the tenant is responsible for operating expenses, taxes and maintenance of the building. After the first

year of the extended term of the Bedford Lease, the annual rental rate increases on each anniversary by $0.50 per square foot. We have the right to further extend the term of the Bedford Lease for an additional five (5) year period. If we exercise this right to further extend the term of the Bedford Lease, the annual rental rate for the first year of the further extended term will be the greater of: (a) the rental rate in effect immediately preceding the commencement of the extended term; or (b) the market rate at such time, and on each anniversary of the commencement of the extended term the rental rate will increase by $0.50 per square foot. Additionally, SPITrust agreed to reimburse us up to $50 thousand for all costs incurred by us in connection with any alterations or improvements to the premises or repairs or replacements to the heating and air conditioning systems. We believe that the terms of the Bedford Lease, as amended, are commercially reasonable. Rent expense under the Bedford Lease was $578 thousand for each of the three months ended June 30, 2012 and 2011, respectively, and $1.2 million for each of the six months ended June 30, 2012 and 2011, respectively.

On August 29, 2008, we entered into a Lease Agreement (the “Hudson Lease”) with SPI-Trust, with respect to 90 thousand square feet of space comprising the entire building in which Spire Semiconductor has occupied space since June 1, 2003. The term of the Hudson Lease commenced on September 1, 2008, and was to continue for seven (7) years until August 31, 2015. The annual rental rate for the first year of the Hudson Lease was $12.50 per square foot on a triple-net basis, whereby the tenant was responsible for operating expenses, taxes and maintenance of the building. The annual rental rate increases on each anniversary by $0.75 per square foot. In addition, we were required to deposit with SPI-Trust $300 thousand as security for performance by our company for its covenants and obligations under the Hudson Lease. SPI-Trust is responsible, at its sole expense, to make certain defined tenant improvements to the building. The Hudson Lease is classified as a related party operating lease. Rent expense under the Hudson Lease was zero and $332 thousand for the three months ended June 30, 2012 and 2011, respectively, and $253 thousand and $664 thousand for the six months ended June 30, 2012 and 2011, respectively. In connection with sale of the Semiconductor Business Unit, the lease was terminated on March 9, 2012 and we were released from all future obligations under the lease as of that date. The security deposit of $300 thousand was used to off-set rent payments in the first quarter of 2012.

Critical Accounting Policies

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Among the significant estimates affecting our consolidated financial statements are those relating to revenue recognition, reserves for doubtful accounts, reserve for excess and obsolete inventory, impairment of long-lived assets, stock-based compensation and warranty reserves. We regularly evaluate our estimates and assumptions based upon historical experience and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. To the extent actual results differ from those estimates, our future results of operations may be affected. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements. Refer to Note 2 of the notes to consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2011 for a description of our significant accounting policies.

Contractual Obligations, Commercial Commitments and Off-Balance Sheet Arrangements

The following table summarizes our gross contractual obligations at June 30, 2012 and the maturity periods and the effect that such obligations are expected to have on our liquidity and cash flows in future periods:

	Payments Due by Period				
Contractual Obligations	Total	Less than	2 - 3	4 - 5	More Than

		1 Year	Years	Years	5 Years
(in thousands)					
Revolving Credit Facility (SVB)	$800	$800			
Ex-Im Facility (SVB)	$357	$357			
Purchase obligations	$1,059	$1,003	$55	$1	
Unrelated party capital leases	$34	$27	$7		
Operating leases:					
Unrelated party operating leases	$277	$200	$77		
Related party operating leases	$13,191	$2,278	$4,771	$5,060	$1,082

Purchase obligations include all open purchase orders outstanding regardless of whether they are cancelable or not. Included in purchase obligations are raw material and equipment needed to fulfill customer orders.

The Revolving Credit Facility and Ex-Im Facility does not include an interest component to the contractual obligation.

Outstanding letters of credit totaled $516 thousand and $1.4 million at June 30, 2012 and December 31, 2011, respectively. The letters of credit secure performance obligations and purchase commitments, and allow holders to draw funds up to the face amount of the letter of credit if we do not perform as contractually required. At June 30, 2012, $516 thousand was secured by the Revolving Credit Facility and at December 31, 2011, $21 thousand was secured by restricted cash and $1.4 million was secured by the Revolving Credit Facility.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not required as we are a smaller reporting company.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, an evaluation of the effectiveness of the design and operation of the our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) was performed under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2012 to ensure that information required to be disclosed in the reports it files and submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that information required to be disclosed under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2012 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

There have been no material changes to the legal proceedings disclosure included in Part I, Item 3 (“Legal Proceedings”) of our Annual Report on Form 10-K for the year ended December 31, 2011.

Item 1A. Risk Factors

There have been no material changes in the Risk Factors described in Part I, Item 1A (“Risk Factors”) of our Annual Report on Form 10-K for the year ended December 31, 2011.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

10.1	Spire Corporation 2007 Stock Equity Plan, as amended, incorporated by reference to Appendix A to the Company's Schedule 14A Proxy Statement dated April 10, 2012.
31.1	Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to §302 of the Sarbanes-Oxley Act of 2002.
31.2	Certificationof the Chief Financial Officer and Treasurer pursuant to §302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Chairman of the Board, Chief Executive Officer and President pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002.
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101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Lable Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
*	Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files on Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Spire Corporation

Dated: August 9, 2012

By: /s/ Roger G. Little
Roger G. Little
Chairman of the Board, Chief Executive Officer and President
(Principal Executive Officer)

Dated: August 9, 2012

By: /s/ Robert S. Lieberman
Robert S. Lieberman
Chief Financial Officer and Treasurer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT INDEX

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